U.S. Application No. 10/646,318, filed August 22, 2003
Attorney Docket No. 14366US02
Amendment dated July 20, 2009
In Response to Office Action mailed February 19, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

1-55. (Cancelled)

56. (Currently Amended) A handheld wireless communications device having at least one antenna, comprising:

a terminal that has a microphone and a speaker that provide voice input/output, wherein the terminal provides a voice recognition control system that uses the microphone, wherein the terminal provides a graphical user interface that includes a touch sensitive display;

a wireless transceiver arranged to transmit and receive radio frequency signals, the transceiver being operatively coupled with the at least one antenna, the transceiver being operatively coupled to a rechargeable battery, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulation-generator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter which, in turn, is coupled to the transmitter level adjust circuitry which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second low pass filter which, in turn, is coupled to the data recovery circuitry, wherein the modulation-generator-and-limiter circuit is coupled to an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor;

a CCD sensor that senses an optical image; and

a connector arranged to couple the wireless transceiver with the terminal and to transmit signals, wherein the terminal is coupled with the connector and is arranged to standardize logic levels and a format of the signals transmitted over the connector,

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wherein the wireless transceiver is housed in a module that can be removed and replaced with a different type of module without requiring tuning adjustments.

- 57. (Previously Presented) The handheld wireless communications device of claim 56 wherein the at least one antenna comprises a flat antenna.
- 58. (Previously Presented) The handheld wireless communications device of claim 56 wherein the at least one antenna comprises a pair of flat antennas.
- 59. (Previously Presented) The handheld wireless communications device of claim 56 wherein the at least one antenna comprises two antennas having different structure relative to each other.
- 60. (Currently Amended) In a communication system including a portable terminal, the terminal comprising:
- a microphone and a speaker that provide voice input/output, the microphone being used with a voice recognition control system;
- a touch-sensitive graphical display that is capable of being operatively coupled to a rechargeable battery;
 - a CCD sensor that senses a wireless image signal;
- a wireless communications module comprising a <u>wireless</u> transceiver arranged to transmit and receive radio frequency signals, the module being of such a size and weight as to be handheld, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulation-generator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter

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which, in turn, is coupled to the transmitter level adjust circuitry which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second low pass filter which, in turn, is coupled to the data recovery circuitry, wherein the modulation-generator-and-limiter circuit is coupled to an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor;

at least one antenna coupled with the transceiver and embedded within the communications module; and

a connector arranged to engage the communications module from the terminal and to transmit signals, wherein the terminal is coupled with the connector and is arranged to standardize logic levels and a format of the signals transmitted over the connector

wherein the wireless communications module can be removed and replaced with a different type of module without requiring tuning adjustments.

- 61. (Previously Presented) The terminal of claim 60 wherein the at least one antenna comprises a flat antenna.
- 62. (Previously Presented) The terminal of claim 60 wherein the at least one antenna comprises a pair of flat antennas.
- 63. (Previously Presented) The terminal of claim 60 wherein the at least one antenna comprises two antennas having different structure relative to each other.
- 64. (Previously Presented) The terminal of claim 60 wherein battery power is applied to the communications module from the terminal through a switch and wherein the terminal is responsive to the non-operation of the communications module by opening the switch and by

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removing power from the communications module.

65. (Currently Amended) Apparatus for use with a portable terminal comprising:

a microphone and a speaker that provide voice input/output, the microphone being used with a voice recognition control system;

a user interface that includes a touch-sensitive graphical display, the touch-sensitive graphical display being operatively coupled to a rechargeable battery;

a wireless communications module comprising a <u>wireless</u> transceiver arranged to transmit and receive radio frequency signals, the module having such a size and weight as to be handheld, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulation-generator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second low pass filter which, in turn, is coupled to the data recovery circuitry, wherein the modulation-generator-and-limiter circuit is coupled to an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor;

at least one antenna coupled with the communications module and embedded within the communications module; and

a connector arranged to engage the communications module with the terminal and to transmit signals,

wherein the terminal is arranged to standardize logic levels and a format of the signals transmitted over the connector wherein the wireless communications module is configured to be removable and replaceable with a different type of module without requiring tuning adjustments.

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- 66. (Previously Presented) The apparatus of claim 65 wherein the at least one antenna comprises a flat antenna.
- 67. (Previously Presented) The apparatus of claim 65 wherein the at least one flat antenna comprises a pair of antennas.
- 68. (Previously Presented) The apparatus of claim 65 wherein the at least one antenna comprises two antennas having different structure relative to each other.
- 69. (Currently Amended) Apparatus for use with a portable terminal including a connector and having a handheld size and weight, the apparatus comprising a microphone and a speaker that provide voice input/output, the microphone being used with a voice recognition control system, a graphical user interface that provides a touch-sensitive display, the graphical user interface being operatively coupled to a rechargeable battery, a CCD sensor that senses an optical image, a wireless communications module having a generally flat rectangular shape and having such a size and weight as to be handheld, the wireless communications module being coupled to the terminal through the connector and comprising a wireless transceiver arranged to transmit and receive radio frequency signals, the terminal being engaged by the wireless communications module through the connector, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulationgenerator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter which, in turn, is coupled to the transmitter level adjust circuitry which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second

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low pass filter which, in turn, is coupled to the data recovery circuitry, wherein the modulation-generator-and-limiter circuit is coupled to an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor, wherein the wireless communications module is configured to be removable and replaceable with a different type of module without requiring tuning adjustments.

- 70. (Previously Presented) The apparatus of claim 69 comprising a flat antenna.
- 71. (Previously Presented) The apparatus of claim 69 comprising a pair of antennas.
- 72. (Previously Presented) The apparatus of claim 71 wherein the pair of antennas having different structure relative to each other.